PHMC Environmental Management Performance Report – November 2001 Section A – Executive Summary



Section A *Executive Summary*

INTRODUCTION

his section of the report is intended to provide Management with an executive-level summary of the most noteworthy performance information to date. All cost, schedule, milestone commitments, performance measures, and safety data is current as of November 30, 2001. Accomplishments, Issues and Integration items are current as of December 27, 2001 unless otherwise noted.

The section begins with a description of notable accomplishments that have occurred since the last monthly report and are considered to have made the greatest contribution toward safe, timely, and cost-effective clean up. Following the accomplishment section is an overall fiscal year-to-date summary analysis addressing cost, schedule, and milestone performance. Overviews of safety ensue. The next segment of the Executive Summary, entitled Breakthroughs and Opportunities for Improvement represents potential significant improvements over the established baseline. The Critical Issues section is designed to identify the high-level challenges to achieving cleanup progress.

Concluding the Executive Summary, a forward-looking synopsis of Upcoming Planned Key Events is provided.

Note: Milestones tracked and reported in the Executive Summary are FY2002 Contract Milestones and consist of two Department of Energy levels. In descending order these levels are 1) Department of Energy-Headquarters (HQ), and 2) Richland Operations (RL). Because it is also useful to distinguish milestones based on specific drivers, the Site applies a designation for those milestones created or tracked to meet the requirements of Enforceable Agreements (EAs). When a milestone satisfies both an EA requirement and a milestone level, it is categorized as both. However, in order to avoid duplicate reporting, this report accounts for each milestone only once. Where an overlap exists between EA and a level (i.e., HQ or RL), the milestone is reported as EA. Additionally, Tri-Party Agreement (TPA) Major and Interim milestones are EA milestones. TPA milestones that are not enforceable are called Target milestones and are included in the milestone tables found in the applicable Project Sections. These tables include FY2002 through FY2006 milestones.

NOTABLE ACCOMPLISHMENTS

Accelerated Deactivation Project - 200 Area — All six cells at 224-T have been entered and a Non-destructive Assay performed on the accessible vessels, completing Phase I characterization. Very little plutonium was found, which supports the reports that the vessels had been flushed.

Stabilization of Nuclear Material

- **Residues** Fiscal Year To Date (through December 21, 2001) 151,395 grams of Hanford Ash were packaged in Pipe Overpack Containers (POCs). During this reporting period, fifteen POCs were shipped to the Central Waste Complex (CWC).
- **Solutions** 3⁄4 The monthly production for the Solutions Stabilization Project was 522 liters; an increase of 116 liters from last month. This included a total of 380 liters through the direct discard process and 142 liters through the oxalate precipitation process.
- **Project W-460** 3⁄4 The final phase of W-460 construction is underway with the construction of the new security entrance into the 2736-ZB building. The anticipated construction completion date is early February.

Spent Nuclear Fuel Movement Activities 3/4 Thirty-seven Multi-Canister Overpacks (MCOs) containing 174.02 Metric Tons of Heavy Metal (MTHM) have been removed from K West (KW) Basin.

New WSCF Re-Accreditation Process ¾ The Waste Sampling and Characterization Facility (WSCF) successfully completed a newly revised re-accreditation process through the American Industrial Hygiene Association. The new program aligns with International Standards Organization quality requirements which testing and calibration laboratories must meet to demonstrate technical competence and the ability to generate technically valid results.

PERFORMANCE DATA AND ANALYSIS

The following provides a brief synopsis of overall PHMC Environmental Management (EM) cost, schedule, and milestone performance.

FY 2002 Schedule and Cost Performance

Schedule Performance — There is a FY 2002 year-to-date 3.0 percent (\$2.2 million) favorable schedule variance that is within the established 10 percent threshold. Subprojects outside the threshold are Advanced Reactor Transition, Spent Nuclear Fuel, and 200 Area Remediation. Detailed variance analysis explanations can be found in the Project Sections.

Cost Performance — FY 2002 year-to-date cost performance reflects a 7.8 percent (\$5.8 million) favorable cost variance that is outside the established 10 percent threshold. Subprojects outside the threshold are Advanced Reactor Transition, River Corridor Waste Management, Spent Nuclear Fuel, 200 Area Remediation, and HAMMER. Detailed variance analysis explanations can be found in the Project Sections.

BASELINE PERFORMANCE STATUS FY 2002 COST / SCHEDULE PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS (\$M)

DATA THROUGH NOVEMBER 2001

		Cu	Annual				
		FYTD			Schedule	Cost	Budget
		BCWS	BCWP	ACWP	Variance	Variance	Buuget
River Corridor Restoration							
0.1.2	Area Cleanup	0.2	0.2	0.2	0.0	0.0	1.4
0.1.0	vanced Reactor Transition	0.2	0.3	0.1	0.1	0.2	1.5
	er Corridor Waste Mgmt.	0.5	0.5	0.4	0.0	0.1	3.9
3.1.6 300	Area Facility Transition	6.0	5.4	5.2	(0.6)	0.2	43.8
	C06						
Subtotal Restoration		6.9	6.4	5.9	(0.5)	0.5	50.6
	Final Closure and SNF						
	ent Nuclear Fuel	21.8	24.5	21.4	2.7	3.1	168.4
Subtotal SNF		21.8	24.5	21.4	2.7	3.1	168.4
Central Plateau Transition							
0.0.1	Area Remediation	1.0	1.2	0.5	0.2	0.7	15.6
	ste Management P02	11.2	12.1	11.3	0.9	0.8	81.2
	tonium Finishing Plant	13.5	12.3	11.2	(1.2)	1.1	78.6
Subtotal Central Plateau		25.7	25.6	23.0	(0.1)	2.6	175.4
Site Integation & Infrastructure					` ,		
	Integration	4.6	4.7	4.5	0.1	0.2	29.8
3.4.2 Lan SS	dlord & Site Services	12.7	12.7	13.4	0.0	(0.7)	92.4
3.4.5 HAI SS0	MMER 05	0.7	0.7	0.6	0.0	0.1	4.5
Subtotal Site Integration		18.0	18.1	18.5	0.1	(0.4)	126.7
Site Stewardsl 3.5.1 Nea SC	r Term Stewardship	0.1	0.1	0.1	0.0	0.0	0.9
Subtotal Stewardship		0.1	0.1	0.1	0.0	0.0	0.9
Total PHMC Projects		72.5	74.7	68.9	2.2	5.8	522.0

Notes: Column headings [Budgeted Cost of Work Scheduled (BCWS), Budgeted Cost of Work Performed (BCWP), etc.] are defined in the glossary at the end of the report. The data is from the Hanford Data Integrator (HANDI) reports.

MILESTONE PERFORMANCE

Milestones represent significant events in project execution. They are established to provide a higher level of visibility to critical deliverables and to provide specific status about the accomplishment of these key events. Because of the relative importance of milestones, the ability to track and assess milestone performance provides an effective tool for managing the PHMC EM cleanup mission. These milestones have been included in the FH contract.

FYTD milestone performance (Enforceable Agreement [EA], U.S. Department of Energy- Headquarters [DOE-HQ], and RL) shows that two milestones were completed on or ahead of schedule, one milestone was completed late, and no milestones are overdue.

In addition to the FY2002 milestones described above, there are two overdue milestones from FY2001 [Spent Nuclear Fuel (Section G) and PFP (Section J)]. Further details regarding these milestones may be found in the referenced Project Sections.

FY 2002 information is depicted graphically on the following page. For additional details related to the data, prior year milestones, and outyear milestones, refer to the relevant project section titled "Milestone Achievement."

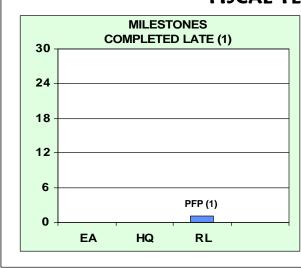
FY 2002 information reflects the September 30 Baseline. Changes in both the number and type of milestones from month to month are the result of Baseline Change Requests (BCRs) approved during the year.

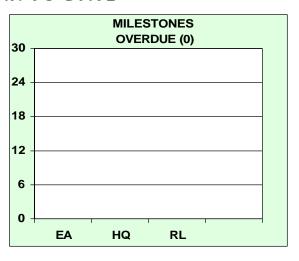
TOTAL ALL HANFORD PROJECTS MILESTONE ACHIEVEMENT FH Contract Milestones

	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			
MILESTONE TYPE	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	Total FY 2002
Enforceable Agreement	2	0	0	0	0	1	0	3
DOE-HQ	0	0	0	0	0	1	0	1
RL	0	0	1	0	0	6	2	9
Total Project	2	0	1	0	0	8	2	13

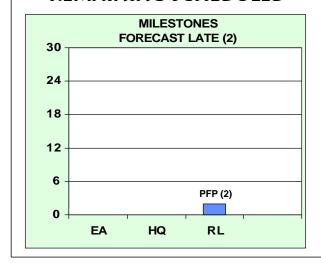
MILESTONE EXCEPTIONS







REMAINING SCHEDULED



These charts provide detail by project and milestone level / type for milestones

- Completed Late
- Overdue
- Forecast Late
- Detailed information can be found in the individual project sections

SAFETY OVERVIEW

The focus of this section is to document trends in occurrences. Improvements in these rates are due to the efforts of the PHMC workforce as they implement the Integrated ES&H Management System (ISMS), work towards achieving Voluntary Protection Program (VPP) "star" status, and accomplish work through Enhanced Work Planning (EWP). Safety and health statistical data is presented in this section.

Significant Safety and Health Events

PHMC Level

Occupational Safety & Health Administration (OSHA) Recordable Case Rate: October and November 2001 data have returned to the baseline, and October did not gain any cases or reclassifications. However, it is too early to declare recovery from the significant increase that occurred the last half of FY 2001. FH senior management has planned five company-level activities to help its workforce reach the goal of an injury free workplace:

- 1) Discussion of expectations at an all Managers meeting
- 2) A Safety Summit which will include heavy participation from Project Safety, Operations, and Bargaining Unit staff
- 3) Safety training for all managers
- 4) Safety and stress management training for work groups
- 5) Reinforcement of ISMS and VPP tools and practices through employee communications, safety meeting topics, increased visibility in Projects and other workplaces; and feedback through Zero Accident Councils

Lost Away Workday Case Rate: The FH team has had three Lost Away Workday Cases this year, and the current safe work hour count for the FH Team is 928,757 hours. A new baseline average and upper control limit have been established for the data from February 2001 through October 2001 at 0.10 cases per 200,000 hours worked.

DOE Safety Cost Index: The DOE Safety Cost Index chart has been rebaselined at 6.7 to reflect an increase in 2001 rates. However, the overall level is good compared to the 8.0 historical goal for the index and in comparison to the DOE overall CY 2000 average of 10.8 cents per hour.

Project Level

The **Plutonium Finishing Plant (PFP)** subproject has surpassed 2.3 million safe work hours. The PFP Lost Away Case Rate is zero. The OSHA Recordable Case Rate is stable at 2.4, and needs improvement. So far, there have been no OSHA recordable cases this fiscal year, but this is not yet significant.

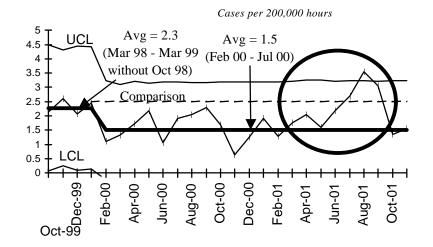
The **300** Area Facility Transition (WBS 3.1.6) subproject (formally called the River Corridor Project) safe work hours clock was reset to zero on October 9, 2001, and 83,999 safe hours have accumulated since. The DOE Safety Cost Index is stable at a good value, 3.7 cents per hour. The OSHA Recordable Case Rate is stable at 1.9 and needs improvement.

The **Spent Nuclear Fuel (SNF)** subproject is approaching 3.7 million safe work hours. Over the past five months, the SNFP DOE Safety Cost Index has stabilized around the 2.2 baseline average, a good value. The OSHA Recordable Case Rate is stable at 1.0, a good value very close to the Fluor goal.

The **200** Area Materials and Waste Management (WBS 3.3.2) subproject (formally called the Waste Management Project) achieved 3 million safe work hours in November. Since October 2001, the WMP DOE Safety Cost Index has returned to normal. The OSHA Recordable Case Rate is stable at 1.8 and needs improvement.

Due to space constraints, FY 1996 through FY 1998 data is not portrayed on the following graphs.

Total OSHA Recordable Case Rate



Green

FY 2001 = 2.0 FY 2002 to date = 1.4 Contractor Comparison Average = 2.5 (CY00)

A significant increase was noted in the OSHA Recordable Case Rate for March - September 2001. October and November 2001 did return to baseline. It is too early to tell if this is a permanent end to the trend, or if rebaselining to a new average will be needed.

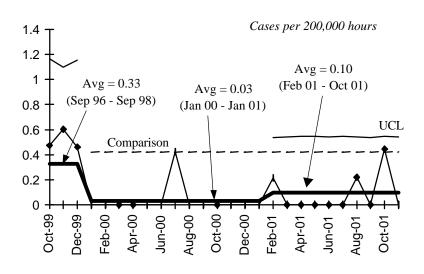
The Fluor Global Services goal is 0.9.

FH has begun a five-point improvement plan focused on employee awareness, responsibility, and management involvment in injury prevention.

The Department of Energy complex-wide rates for DOE contractors are used as comparisons on these charts.

OSHA Lost Away Workday Case Rate

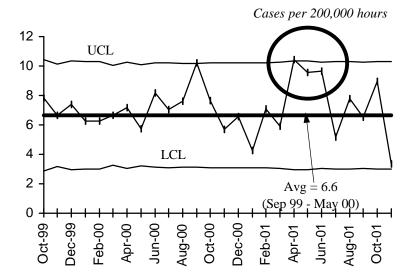




FY 2001 = 0.04 FY 2002 to date = 0.22 Contractor Comparison Average = 0.42 (CY00)

The current safe work hour count for the FH Team is 928,757. There were two new Lost Away Workday Cases in October 2001. One case was the result of fractures the employee received in an automobile accident; the other was caused by improper lifting. The causes for these lost away workday cases will also be addressed in the five-point improvement plan.

FIRST AID CASE RATE

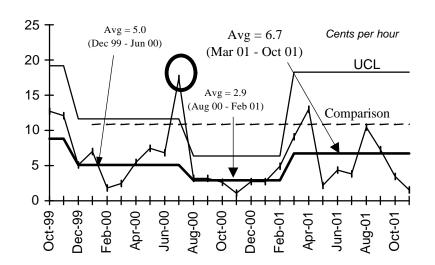


Green

First Aid Rate undergoes seasonal cycles. Increases occur in warmer weather due to insect and animal encounters, and due to wind related minor injuries. Such an increase did occur this past summer. Hanford is especially susceptible to wind borne debris injuries due to the site wildfire last summer. First Aid case rate has remained relatively stable, a good indicator that injuries are not being under-reported.

Fiscal year calculations are not included as DOE does not publish a comparison rate, and comparisons of partial fiscal year data to prior years would not be appropriate due to the cyclical trend in the data.

DOE SAFETY COST INDEX

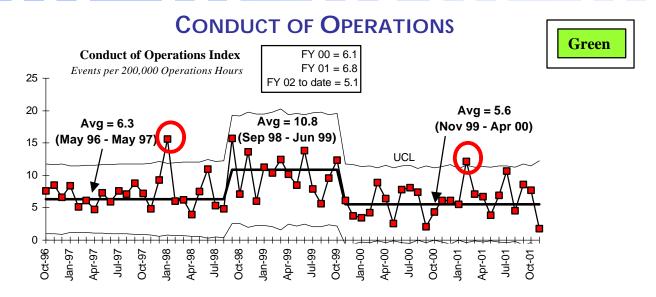




FY 2001 = 5.3 FY 2002 to date = 2.5 Contractor Comparison Average = 10.8 (CY00)

A new baseline average has been established, following the significant increase noted in past months. The current performance is below DOE average, and the historical 8.0 goal for this indicator.

Past data continue to be corrected as further days accumulate on any work restrictions or lost days.



Breakthroughs / Opportunities for Improvement

Breakthroughs

Permit By Rule Treatment at 300 Area TEDF — FH investigated the potential to treat limited categories of liquid non-radioactive hazardous wastes using the existing capabilities of the 300 Area TEDF by applying a permit exclusion available within the waste regulations. Treatment of hazardous wastes at TEDF could provide a low-cost option for disposal of some wastes currently sent off-site. The regulatory analysis and cost-benefit evaluation concluded that there is an opportunity to better utilize existing assets and resources while remaining compliant with applicable regulations. Initial implementation activities are planned through the remainder of FY 02.

Monolithic Removal of 327 Hot Cells — Last year a technical review team found the concept of intact removal of the 327 hot cells to be feasible, to have potentially significant ALARA benefits, and if implemented, will reduce project schedule/cost. Certification that the cells could be disposed of as non-Transuranic waste was a key assumption in that review. The 327 Building Deactivation Project has prepared a (draft) characterization strategy to establish the data quality objectives, and to identify techniques to efficiently obtain data to certify the cells as Low Level Waste (LLW). In parallel, Accelerated Site Technology Deployment (ASTD) funding (\$935K) was awarded to FH for the purchase of state-of-the-art in-situ characterization instruments. The funding for procurements is expected to be available during the second quarter of FY02.

The 200 Area Materials and Waste Management subproject ¾ The conversion of the Waste Retrieval and Packaging (WRAP) low-level waste glovebox line is currently being evaluated to provide added TRU waste processing capability. This conversion will improve WRAP operating reliability, increase throughput capacity, and through the application of supercompaction to waste destined for WIPP, will offer considerable return on investment (savings) over the FH contract period. Funding has been approved through the Accelerated Site Technology Deployment Process for conversion of the WRAP low-level glove box for use on TRU waste.

SNF Equipment Reliability — The SNF Project Availability Assessment Document (SNF-9273) was approved and issued. This assessment plan was presented to HQ EM-40 representatives for their review. The consensus of the HQ team was that it would provide a major step forward in solving the SNF equipment reliability if it was properly implemented. The first weekly implementation status meeting was held on December 19, 2001 with the Design Authorities to evaluate, progress and issues in acquiring identified spares.

Opportunities for Improvement

Conduct of Operations Improvement Initiative — The 300 Area Facility Transition subproject has initiated a Conduct of Operations Improvement Plan to improve organizational performance, and to create a culture change regarding effective implementation of Conduct of Operations principles. The subproject has completed the first three months of the Conduct of Operations Improvement Plan. Each facility and participating organization has spent time reviewing its Conduct of Operations Matrix, identifying areas of improvement and communicating results to the staff. The facility project director will provide a summary review of progress to the subproject Vice President at the two, four and six-month milestones. The four-month status meeting took place on December 6, 2001.

SNF Removal — Thorough and complete planning is needed to prepare for the SNF removal from the 324 B Cell. A significant schedule enhancement effort began on Tuesday, October 30, 2001. Two outside scheduling personnel were obtained to perform a "murder board" of schedule scope and logic in order to develop the necessary schedule detail to efficiently coordinate and manage SNF transfer preparations. An important part of this effort is the development and finalization of the split Readiness Assessment. The schedule enhancement effort was completed in early December and daily meetings are now being held to status the schedule.

Modify Cold Vacuum Drying Facility (CVDF) Process — Modify the CVDF process to reduce the number of thermal resets and relax the criteria to enter "Proof of Dryness" testing.

Sampling Analysis — Notification was received from the State of Washington Department of Ecology (Ecology) that the "Data Quality Objective Process Summary and Sampling and Analysis Plan and Quality Assurance Project Plan in Support of Group 2B Waste Disposition" was acceptable. This reduces most of the sampling of the Group 2 Pu/Al alloys.

ISSUES

Shippingport fuel movement schedules and T Plant cell cleanout schedules are impacted by the Operations Readiness Review (ORR) delay 3/4 The ORR Corrective Action Plan was drafted and reviewed with RL on November 29, 2001. All project issues have been evaluated through the Deficiency Evaluation Group (DEG) process; corrective action implementation is underway with a response due by the end of December. Progress has been made with RL on cell waste disposition, and cell clean out commenced on December 12, 2001. Obtain RL concurrence with the ORR Recovery Plan by December 21, 2001. Reschedule balance of T Plant production upon Recovery Plan approval and completion of first cell clean out and integrate with SNF by January 2002.

ATG's financial status jeopardizes project performance and TPA milestones — Notification has been made to RL that interim milestone (M-91-12A) is in jeopardy due to ATG's financial status. RL has also been notified that PI FHI-M5 may be impacted. Cure notices were sent to ATG on all three major contracts and a response received. The response was deficient and a follow on cure notice has been drafted. Alternatives continue to be considered with other commercial contracting entities and on-site deployments. The inspection of wastes at ATG was conducted by Ecology, with no issues noted.

Surface weld porosity of 3013 outer containers exceeds American Society of Mechanical Engineer (ASME) Boiler and Pressure Vessel Code, Section VIII standards of .040-inch diameter for this material — Savannah River Technology Center (SRTC) has performed testing on the Outer Can Welder (OCW) system. The initial testing identified the gap distance between the lid and the 3013 container may contribute/cause porosity in the weld. A final report with recommendations was issued by SRTC on November 26. A twenty-five container test run was conducted in mid December. Twenty-two of the containers were acceptable. The Savannah River Technology Center is evaluating the results of this test run.

EM CORPORATE PERFORMANCE MEASURES

This information is provided quarterly.

UPCOMING PLANNED KEY EVENTS

The following key events are extracted from the authorized baseline and are currently expected to be accomplished during the next several months. Most are Enforceable Agreement (EA), HQ or DNFSB Milestones.

300 Area Remediation

340 Facility Waste Boxes — Procure waste boxes by January 15, 2002.

Spent Nuclear Fuel Transfer (SNF) — Initiate mockup of SNF operations by March 11, 2002.

300 Area Misc. Contaminated Facilities — Shutdown 333 Building fire protection system by March 2002.

Effluent Tank — Replace effluent tank by April 2002.

TEDF Database Servers — An upgrade to TEDF database servers will be complete by April 2002.

TEDF HVAC — Upgrade TEDF HVAC control system by April 2002.

340 Facility — Update the 340 Facility Deactivation Project Management Plan by May 2002.

324 Building — Complete 26.5 percent remaining 324/327 deactivation scope by June 20, 2002.

Contract Transition — Support transfer of Bechtel Hanford, Inc. (BHI) Central Plateau scope to FH on June 30, 2002 and FH 300 Area scope to River Corridor Contract (RCC) on September 30, 2002.

Spent Nuclear Fuel

NRF TRIGA RadVault — Receive NRF TRIGA RadVault by December 2001.

Canister Cleaning Testing — Complete canister cleaner start-up testing by December 21, 2001.

Canister cleaning operations — Initiate canister removal by January 7, 2002.

K West Outage — Perform K West Maintenance Outage in January 2002.

K West 24/7 Shift — Implement K West 24/7 Shift Implementation by January 14, 2002.

200 Area ISA — Implement 200 Area ISA authorization basis in February 2002.

MCO shipments — Continue MCO shipments through FY 2002.

200 Area Materials & Waste Management

Waste Encapsulation and Storage Facility (WESF) Operations — Prepare for DNFSB 2000-2 Phase II assessment of Confinement Ventilation Systems scheduled for December 2001.

Accelerate Readiness to Receive SNF K Basin Sludge — 1) Complete RL ORR for Shippingport (PA) fuel, 2) Initiate Shippingport fuel movement, and 3) Accelerate T Plant Canyon cell cleanout.

MLLW Treatment — Continue characterization and direct disposal activities. Work with ATG to receive treated wastes shipped there last fiscal year.

Plutonium Finishing Plant (PFP) Support — Continue to receive waste in support of Hanford ash processing through February 2002. Continue receiving stabilized direct discard waste solutions through February 2002.

TRU Waste Retrieval — Continue technical planning to support buried drum retrieval start-up by April 2002.

Headspace Sampling Confirmatory Testing - Following contractual direction from RL, confirmatory testing of the "gas-tight seal" headspace gas sampling method will be performed. The results of the confirmatory testing will be provided to CBFO to support submittal of a permit modification to the WIPP RCRA Permit. This permit modification is necessary to utilize characterization data from 204 TRU waste drums previously sampled using this method.

Support to 300 Area — Support the removal of a Curium/Americium source from the 327 Facility. Support characterization, transport and storage of 324 pipe pit Remote-Handled (RH) wastes.

Liquid Waste Processing — Continue groundwater processing at the 200 Area ETF.

Plutonium Finishing Plant

Repackage Hanford Ash — Complete repackaging of Hanford Ash in late January 2002.

W-460 construction — Complete the final phase of W-460 construction (the new security entrance into the 2736-ZB building) in early February.

Plutonium bearing solutions — Complete Direct Discard of selected plutonium bearing solutions by March 31, 2002.

200 Area Remediation

Tall Well Cars — Ship the second of four tall well cars to Memphis, TN during the first quarter of 2002.

Roof Installation — Complete installation of roofs on B Plant and PUREX by September 30, 2002.